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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/932,298	08/17/2001	Christina Fu	SUN-P6043	4864

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11/07/2005

EXAMINER

SCHUBERT, KEVIN R

ART UNIT PAPER NUMBER

2137

DATE MAILED: 11/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/932,298	Applicant(s) FU ET AL.	
	Examiner Kevin Schubert	Art Unit 2137	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 October 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 and 16-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 and 16-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

Claims 1-11 and 16-21 have been fully considered but are not deemed allowable for the reasons given below. Regarding the Interview on 10/19/05, the examiner greatly appreciates the applicant's time and efforts in seeking to expedite prosecution in the case.

5

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

10

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

15

Claims 1-11 and 16-21 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The applicant has added new limitations to the claim. In the remarks, filed 10/12/05, the applicant states that the amendments may be found, for example, on page 25 of the specification. Page 25, in its entirety is presented below:

20

"...does not need to initiate any communication with the CA clones in the CA cluster network 400 of Figure 4. During the shutdown period, the CA clones will continue to send revocation certificate records to the CRL merger service 470 of Figure 4. Since all the CA clones know exactly which records were received and which records were not received by the CRL merger service 470, attempts will be made continuously made until, either, the CA clone has been shut down, or the CRL merger service 470 is up and running again. This will continue until the revocation certificate record is successfully received by the CRL merger service 470 and the record is published in the CRL 460 database.

25

In addition, each of the CA clones should remember which last publication of a revocation notice, revocation certificate record, was successful. As such, all unpublished revocation certificate records will be kept in memory (e.g., cache memory) for retransmission.

30

To avoid searching through the entire CRL 460 database for unpublished revocation certificate records, under graceful shutdown of the CRL merger service 470, the CA clone can be allowed to store its unpublished revocation certificate records, which are stored in cache memory, to a more permanent storage location".

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After having fully considered page 25 and applicant's entire Specification, the examiner finds no support for limitations e) and f) of claim 1 and substantially similar matter in claim 16 in which applicant claims "sending notification to the one of said plurality of CA clone servers that the single CRL has been successfully updated" and "removing the notice comprising the revocation information from the memory of the one of the plurality of CA clone servers upon receipt of the notification". The examiner requires that the applicant make appropriate correction to the claims or indicate where these limitations are disclosed.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4,8,16-18, and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zubeldia, U.S. Patent No. 6,044,462, in view of Asay, U.S. Patent Application Publication No. 2001/0011255, in further view of McGauley, U.S. Patent No. 5,899,998.

As per claims 1 and 16, the applicant describes a method of creating a certificate revocation list (CRL) comprising the following limitations which are met by Zubeldia in view of Asay in further view of McGauley:

a) creating a single CRL that is centralized, said single CRL associated with a single certificate authority (CA) comprising a master server coupled to a plurality of CA clone servers (Zubeldia: Col 7, lines 38-40; Fig 6);

b) maintaining said single CRL with said master server (Zubeldia: Col 7, lines 14-15; Fig 6);

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c) receiving notice, from one of said plurality of CA clone servers, at said master server containing revocation information regarding a certificate, wherein the one of said plurality of CA clone servers stores the notice in memory (Zubelida: Col 7, lines 7-11);

d) updating said single CRL according to said revocation information (Col 7, line 66 to Col 8, line 7);

e) sending notification to the one of said plurality of CA clone servers that the single CRL has been successfully updated (Asay: [0130]);

f) removing the notice comprising the revocation information from the memory of the one of the plurality of CA clone servers upon receipt of the notification (McGauley: Col 13, lines 43-48);

Zubeldia discloses all of the limitations of parts a through d. Zubeldia does not disclose the limitations of parts e) and f). After one of the CA clone servers sends a notice containing revocation information regarding a certificate to the master server, Zubelida is silent as to sending a notification to a CA clone server (part e) and removing the notice comprising the revocation information from memory (part f).

Asay discloses the idea of sending notification that a CRL has been successfully updated in response to receipt of revocation information. Combining Asay into the system of Zubeldia allows a notification signal to be sent from the master server to the CA clone server in response to the receipt of revocation information as prescribed by Zubelida (Col 7, lines 7-11). It would have been obvious to one of ordinary skill in the art at the time the invention was filed to combine the ideas of Asay with Zubeldia because sending a notification signal allows the CA clone server to know that the revocation information has been successfully received.

Zubeldia in view of Asay disclose all the limitations of parts a through e. However, Zubeldia in view of Asay do not disclose removing the notice from memory upon receipt of the notification. McGauley discloses a method of updating information in which update information is removed from memory upon receipt of notification regarding receipt of the update information. Combining McGauley into the system of Zubeldia in view of Asay allows for the deletion of the notice upon receipt of the notification. It would have been obvious to one of ordinary skill in the art at the time the invention was filed to combine the

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ideas of McGauley with Zubeldia in view of Asay because the notice information is only necessary as part of the single CRL at the database (DBMS) and, accordingly, deleting the notice information on the CA clone server frees up memory space of unnecessary information.

5 As per claims 2 and 17, the applicant describes the method of claims 1 and 16, which are met by Zubeldia in view of Asay in further view of McGauley, with the following limitation which is met by Zubeldia:

 Wherein step d) comprises adding said certificate to said single CRL when said revocation information indicates said certificate is revoked, said revocation information associated with a revocation
10 event occurring at one of said plurality of CA clone servers (Zubeldia: Col 7, line 66 to Col 8, line 7).

 As per claims 3 and 18, the applicant describes the method of claims 1 and 16, which are met by Zubeldia in view of Asay in further view of McGauley, with the following limitation which is met by Zubeldia:

15 Wherein step d) comprises removing said certificate from said single CRL when said revocation information indicates said certificate is valid, said revocation information associated with a revocation event occurring at one of said plurality of CA clone servers (Zubeldia: Col 7, line 66 to Col 8, line 7);

 As per claims 4 and 21, the applicant limits the method of claims 1 and 16, which are met by
20 Zubeldia in view of Asay in further view of McGauley, with the following limitation which is met by Zubeldia:

 Maintaining said single CRL with a CRL merger service module located at said master server (Zubeldia: Col 7, lines 14-15);

25 As per claim 7, the applicant limits the method of claim 1, which is met by Zubeldia in view of Asay in further view of McGauley, with the following limitation which is met by Zubeldia:

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Transmitting said single CRL that is updated to a recipient over a communication network
(Zubeldia: Col 7, lines 29-37; Col 6, lines 57-59);

Referring to figure 6, a user requests information through a server which communicates with the
database and sends the requested information back to the user. The requested information can be a
5 validity check or a CRL (Col 6, lines 57-64).

As per claim 8, the applicant limits the method of claim 1, which is met by Zubeldia in view of
Asay in further view of McGauley, with the following limitation which is met by Zubeldia:

Providing certificate authority services not including maintaining and managing said single CRL at
10 each of said plurality of CA clone servers (Zubeldia: Col 7, lines 7-11).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness
rejections set forth in this Office action:

15 (a) A patent may not be obtained though the invention is not identically disclosed or described as set
forth in section 102 of this title, if the differences between the subject matter sought to be patented and
the prior art are such that the subject matter as a whole would have been obvious at the time the
invention was made to a person having ordinary skill in the art to which said subject matter pertains.
20 Patentability shall not be negated by the manner in which the invention was made.

Claims 5,10,11, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zubeldia
in view of Asay in further view of McGauley in further view of Parkvall, U.S. Patent Application Publication
No. 2002/0080719.

25 As per claims 5 and 19, the applicant limits the method of creating a CRL as described in claims
1 and 16, which are met by Zubeldia in view of Asay in further view of McGauley, with the following
limitation which is met by Parkvall:

Sending said notice over a secure communications channel (Parkvall: [0004]);

30 Zubeldia in view of Asay in further view of McGauley does not disclose sending information over
a secure communications channel. Parkvall discloses the notion of Stop and Wait ARQ communication

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between two parties in which one packet is sent to a recipient and the sender waits for an acknowledgement before sending a second packet. Thus, Parkvall introduces the idea of creating a secure communications channel through acknowledgement signals between a sender and a receiver.

It would have been obvious to one of ordinary skill in the art at the time the invention was filed to incorporate the ideas of Parkvall with those of Zubeldia in view of Asay in further view of McGauley because doing so provides the clone servers assurance that information they send is properly received by the master server and not subject to transmission failures.

As per claim 10, the applicant discloses the method of claim 1, which is met by Zubeldia in view of Asay in further view of McGauley, with the following limitation which is met by Parkvall:

a) at said one of said plurality of clone servers, detecting whether said notice was received at said master server (Parkvall: [0004]);

b) repeatedly sending said notice until received by said master server (Parkvall: [0004]);

Through Stop and Wait Automatic Response Request (ARQ), an acknowledgement is sent to the sender or clone server if the message is received (part a). Automatic Response Request also includes sending a notice to repeat the sending of the message in the case of an error (part b).

As per claim 11, the applicant discloses the method of claim 10, which is met by Zubeldia in view of Asay in further view of McGauley, with the following limitation which is met by Parkvall:

Storing said notice if said notice was not received at said master server (Parkvall: [0004]);

Through Stop and Wait Automatic Response Request (ARQ), the message or packet is stored until confirmation that it has been correctly received at which time the message or packet is deleted.

Claims 5,6,9,19, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zubeldia in view of Asay in further view of McGauley in further view of Oracle (Oracle Internet Directory Administrator's Guide. Release 2.0.6. 1999).

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As per claims 5,6, and 19, the applicant describes the method of creating a CRL as described in claims 1 and 16, which are met by Zubeldia in view of Asay in further view of McGauley, with the following limitation which is met by Oracle:

Sending said notice over a secure communication channel (Oracle: Page 3);

5 Zubeldia in view of Asay in further view of McGauley does not disclose sending information over a secure communication channel. Oracle discloses the Oracle Internet Directory, a service which provides directory access control. Among the features of Oracle Internet Directory are providing a secure communication channel through a secure socket layer (SSL) authenticated access system.

10 It would have been obvious to one of ordinary skill in the art at the time the invention was filed to combine the ideas of Oracle with those of Zubeldia in view of Asay in further view of McGauley because doing so makes the system more robust and less subject to data manipulation or attacks.

15 As per claims 9 and 20, the applicant describes the method of creating a CRL as described in claims 1 and 16, which is met by Zubeldia in view of Asay in further view of McGauley, with the following limitation which is met by Oracle:

Storing said CRL in a database accessed via a lightweight directory access protocol (LDAP) that supports a Secure Sockets Layer (SSL) (Oracle: Pages 1-3).

Response to Arguments

20 Applicant's arguments, see Remarks filed 10/12/05, with respect to claim 1 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

25 Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin Schubert whose telephone number is (571) 272-4239. The examiner can normally be reached on M-F 7:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Emmanuel Moise can be reached on (571) 272-3865. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

KS


EMMANUEL L. MOISE
SUPERVISORY PATENT EXAMINER